

CLAIMS

What is claimed is:

1. A dietary supplement composition for a mammal, comprising a nutritionally effective amount of β -glucan and colostrum.
2. The dietary supplement composition of claim 1, further comprising a nutritionally effective amount of lactoferrin.
3. The dietary supplement composition of claim 1, further comprising a nutritionally effective amount of citrus pectin.
4. The dietary supplement composition of claim 3, further comprising a nutritionally effective amount of lactoferrin.
5. A dietary supplement composition for a mammal, comprising a nutritionally effective amount of β -glucan and lactoferrin.
6. The dietary supplement composition of claim 5, further comprising a nutritionally effective amount of citrus pectin.
7. A dietary supplement composition for a mammal, comprising a nutritionally effective amount of β -glucan and pectin.
8. The dietary supplement composition of claim 1 wherein said mammal is a human.
9. The dietary supplement composition of claim 4 wherein said composition comprises from about 5 to about 83.3 weight percent of said colostrum, from about 0.909 to about 6.67 weight percent of said lactoferrin, from about 0.1 to about 1.25 weight percent of said citrus pectin, and from about 0.001 to about 10 weight percent of said β -glucan.

10. The dietary supplement composition of claim 4 further comprising a nutritionally effective amount of citric acid.

11. The dietary supplement composition of claim 10, wherein said composition comprises from about 0.25 to about 2.4 weight percent of said citric acid.

12. The dietary supplement composition of claim 4 further comprising a nutritionally effective amount of citric acid, dextrose, magnesium stearate, silicon dioxide and stearic acid.

13. The dietary supplement composition of claim 12, wherein said composition comprises from about 0.25 to about 2.4 weight percent of said citric acid, from about 35.8 to about 88.3 weight percent of said dextrose, from about 0.25 to about 1.5 weight percent of said magnesium stearate, from about 0.25 to about 1.5 weight percent of said silicon dioxide, and about 1.67 to
5 about 2.5 weight percent of said stearic acid.

14. The dietary supplement composition of claim 12, further comprising one or more of a nutritionally acceptable carrier, diluent or flavoring.

15. The dietary supplement composition of claim 13, further comprising a flavoring in an amount of about 0.15 to about 1.31 weight percent.

16. The dietary supplement composition of claim 4 wherein said composition is prepared in a chewable delivery system.

17. The dietary supplement composition of claim 14 wherein said composition comprises about 9.63 weight percent of said colostrum, about 0.642 weight percent of said lactoferrin, about 0.321 weight percent of said citrus pectin, about 1.28 weight percent of said β -glucan, about 0.626 weight percent of said citric acid, about 83.3 weight percent of said dextrose, about
5 0.482 weight percent of said magnesium stearate, about 0.482 weight percent of said silicon dioxide, about 1.93 weight percent of said stearic acid, and about 1.31 weight percent of said nutritionally acceptable carrier, diluent, or flavoring.

18. The dietary supplement composition of claim 4 further comprising a complex of essential saccharides.

19. The dietary supplement composition of claim 18, wherein the complex of essential saccharides comprises saccharides provided in oligomeric or polymeric forms as found in:

gum tragacanth, guar gum, grain flour, rice flour, sugar cane, beet sugar, potato, milk, agar, algin, locust bean gum, psyllium, karaya gum, seed gums, Larch tree extract, aloe vera extract, gum ghatti, starch, cellulose, degraded cellulose, fructose, high fructose corn syrup, pectin, chitin, acacia, gum arabic, alginic acid, carrageenan, dextran, xanthan gum, chondroitin sulfate, sucrose, acetylated polymannose, maltose, glucan, lentinan, mannan, levan, hemi-cellulose, inulin, fructan, and lactose.

20. A dietary supplement composition for producing in a mammal a first effect selected from the group consisting of regulation of the immune system, regulation of cytokine release, prevention of autoimmune response from intestinal pathogens, promotion of phagocytosis by neutrophils, stimulation of B cell and antibody secretion, inhibition of mast cell enzyme involved in allergic airway response, enhancement of natural killer cell activity, stimulation of muscle protein synthesis, inhibition of muscle protein breakdown, stimulation of wound healing, stimulation of tissue repair, induction of cartilage formation and bone repair, anti-inflammatory effects, bioregulation during trauma stress, enhancement of hematopoietic activity, increase in insulin-like growth factor in tissues, antidiarrheal effect on gastrointestinal tract infection, stimulation of gastrointestinal tract growth, improvement in function of the gastrointestinal tract, promotion of the growth of beneficial gastrointestinal bacteria, lowering blood cholesterol, improving glucose tolerance, reducing average blood glucose in non-insulin-dependent diabetics, stimulation of glucose uptake by muscles, inhibition of the binding of bacteria to a host tissue, inhibition of the growth of bacteria, protection against viruses, enhancing activity of antibiotics, antifungal effects, anti-amoebic effects, prevention of tumor development, inhibition of tumor cell growth, inhibition of tumor metastasis, enhancement of natural killer cell toxicity to tumors, improvement in Alzheimer's dementia, antioxidant effects, and reaction against bacterial toxins,

said dietary supplement composition comprising a nutritionally effective amount of β -glucan and at least one member selected from the group consisting of colostrum and lactoferrin.

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21. The dietary supplement composition of claim 20, comprising a nutritionally effective amount of β -glucan, colostrum and lactoferrin.

22. The dietary supplement composition of claim 20, further comprising a nutritionally effective amount of citrus pectin.

23. The dietary supplement composition of claim 21, further comprising a nutritionally effective amount of citrus pectin.

24. The dietary supplement composition of claim 22, said dietary supplement composition producing in a mammal a second effect selected from the group consisting of enhancing bile acid excretion, enhancing cholesterol excretion, reducing arteriosclerosis, binding heavy metals, stimulation of immune function, resistance to infection, suppression of infection, increase of
5 tissue repair and healing, promotion of body health and athletic performance, promotion of gastrointestinal tract health, promotion of blood vessel health, promotion of glucose utilization and blood sugar balance, improved cancer inhibition, improved mental function, and improved toxin-related activities.

25. A dietary supplement composition for producing in a mammal a first effect selected from the group consisting of regulation of immune function, inhibition of cytokine release, prevention of autoimmune response from intestinal pathogens, promotion of phagocytosis by neutrophils, inhibition of mast cell enzyme involved in allergic airway response, enhancement of natural
5 killer cell activity, anti-inflammatory effect, bioregulation during trauma stress, enhancement of hematopoietic activity, promotion of the growth of beneficial gastrointestinal bacteria, lowering blood cholesterol, improving glucose tolerance, inhibition of binding of bacteria to a host tissue, inhibition of bacteria growth, protection against viruses, enhancement of antibiotic activity, antifungal effects, prevention of tumor development, inhibition of tumor cell growth, inhibition

10 of tumor metastases, and enhancement of natural killer cell toxicity to tumors, said dietary supplement composition comprising a nutritionally effective amount of β -glucan and lactoferrin.

26. The dietary supplement composition of claim 25, further comprising a nutritionally effective amount of citrus pectin, and producing in a mammal a second effect selected from the group consisting of stimulation of gastrointestinal tract growth, improved function of the gastrointestinal tract, enhancement of bile acid excretion, enhancement of cholesterol excretion,
5 reduction in atherosclerosis, and binding of heavy metals.

27. A dietary supplement composition for producing in a mammal an effect selected from the group consisting of regulation of immune function, enhancement of hematopoietic activity, stimulation of gastrointestinal tract growth, improvement of gastrointestinal tract function, lowering of blood cholesterol, enhancement of bile acid excretion, enhancement of cholesterol
5 excretion, reduction of atherosclerosis, improvement of glucose tolerance, inhibition of binding of bacteria to a host tissue, enhancement of antibiotic activity, prevention of tumor development, inhibition of tumor cell growth, inhibition of tumor metastases, enhancement of natural killer cell toxicity to tumors, and binding of heavy metals, said dietary supplement composition comprising a nutritionally effective amount of β -glucan and citrus pectin.